

XXIX.—*On some new Species of Butterflies from Tropical America.* By ARTHUR GARDINER BUTLER, F.L.S., F.Z.S., &c.

THE following species are chiefly interesting additions to our knowledge of the Rhopalocerous fauna of Veragua, the *Antirrhea* and *Daptonura* being most valuable, on account of the limited number of species in both genera hitherto recorded.

Family *Nymphalidæ*.

Subfamily *SATYRINÆ*, Bates.

Genus *ANTIRRHÆA*, Westwood.

1. *Antirrhea tomasia*, n. sp.

Allied to *A. miltiades*; primaries above more like *A. philaretetes*, the transverse discal bar being indistinct; secondaries darker in the male, rather paler in the female, with one small subapical white dot, no other markings; fringe sordid, not bright yellow as in *A. miltiades*: wings below almost as in *A. philaretetes*, but richer in colour; the central band broader and more strongly angulated in secondaries than in any known species; its external whitish marginal bar much narrower, scarcely indicated from the costa of secondaries to the third median branch, but wide and continuous from the first branch to the anal angle; the ocelliferous patch on median interspaces chiefly differing from that of *A. philopæmen* in consequence of the encroachment of the angular outer edge of the central band; external border tinted with tawny.

Expanse of wings, ♂ 3 inches 9 lines, ♀ 4 inches 3 lines.

Hab. Bugaba, Veragua. Type, coll. H. Druce.

Subfamily *NYMPHALINÆ*, Bates.

Genus *PAPHIA*, Fabricius.

2. *Paphia Ada*, n. sp.

Wings above blue-black, with brighter blue gloss at base; primaries with a pale greenish-blue maculated band (composed of seven spots), angulated near apex, running from the third fifth of the subcostal nervure to the end of the submedian; secondaries with the costal area black-brown; abdominal area pale rosy brown, clothed along submedian nervure and towards anal angle with long dark brown hairs: body above greenish black: wings below very similar to *P. mæris*, but without the tail, chocolate-brown, sericeous, hatched and banded with dull

brown and irrorated with dead silver; primaries with outer margin and an oblique streak to apex silver; secondaries with a submarginal series of five silver dots near anal angle: legs and palpi below pepper-and-salt colour.

Expanse of wings 2 inches 8 lines.

Hab. Bugaba, Veragua, and Bogota (*Lindig*). Type, coll. Druce.

There is an example of this species in the collection of the British Museum from Bogota. The species is allied to *P. xenocrates*, but much smaller, the primaries above being more like *P. psammis*.

3. *Paphia rutilans*, n. sp.

Wings above glossy magenta-red, with blue reflections; primaries with apical half from basal third of costa to external angle sepia-brown, partly shot with blue, crossed near apex by a short, irregular, oblique magenta band (not reaching costa or outer margin); a lunulated dark brown bar from third median branch at its basal third to third fifth of submedian nervure; secondaries with costa, apex, a lunate spot near apex, and outer margin sepia-brown; abdominal area pale brown; body olive-brown: wings below red-brown, hatched all over with grey, clouded, spotted, and banded with dark brown, as in *P. centaurus*; secondaries with four minute white anal submarginal dots: body whitish brown, speckled with red-brown.

Expanse of wings 2 inches 6 lines.

Hab. Pucartambo, Peru (*Whitely*). Type, B.M.

Coloured much like *P. centaurus*, but more like *P. ryphea* in form, size, and pattern.

Subfamily *HELICONINÆ*, Bates.

Genus *HELICONIUS*, Fabricius.

4. *Heliconius clarescens*, n. sp.

Closely allied to *H. telchinia*, but differing in the restriction of the discoidal black streak of primaries to a short oblique spot above the origin of the first median branch, the absence of the internal streak, the yellow tint at termination of the fulvous area, and the absence of the black elliptical band of secondaries; wings below with the same differences.

Expanse of wings 3 inches 8 lines.

Hab. Bugaba, Veragua. Type, coll. Druce.

Probably a mimic of *Mechanitis macrinus*.

5. *Heliconius superioris*, n. sp.

Nearly allied to *H. numata*, but with the yellow band of primaries tinted externally with tawny, the two spots on median interspaces and the streak from outer margin (at end of yellow band) united together; discoidal spot and streak enlarged, sometimes connected; tawny macular discal bar narrower; marginal border wider, dotted with buff: differences below as above, excepting that the secondaries have the usual submarginal row of white dashes.

Expanse of wings 3 inches 3-7 lines.

Hab. Ega and Villa Nova (*Bates*). Type, B.M.

This species is intermediate in character between *H. numata* and *H. metalilis*.

6. *Heliconius nubifer*, n. sp.

Differs from the preceding in having all the tawny area clouded with mahogany-colour, with the black bars wider; no yellow spot on under surface of secondaries.

Expanse of wings 3 inches 1 line.

Hab. Fonteboa (*Bates*). Type, B.M.

One of the many mimics of *Mechanitis egaensis* of Bates.

Family Papilionidæ.

Subfamily PIERINÆ, Bates.

Genus DAPTONURA, Butler.

7. *Daptonura florinda*, n. sp.

♂. Wings above sulphur-yellow; the apex, outer margin and costa of primaries (excepting a pyriform spot at base), and the outer margin of secondaries narrowly black: head black, clothed with grey and cream-coloured hairs; thorax grey, scantily clothed at the sides with pale yellow hairs; abdomen sulphur-yellow, greyish towards base: wings below deeper yellow than above, margins paler brown; primaries with a discocellular transverse streak, widening upon the costa; four apical submarginal yellow spots; secondaries with the base orange; pectus orange at the sides, anal valves white.

Expanse of wings 2 inches 9 lines.

♀. Primaries gamboge-yellow, with the base and internal area diffusely saffron, an oblique discocellular brown streak; outer margin more broadly brown than in the male, and

sinuated internally; secondaries saffron-yellow, with a wider brown border; body tinted with saffron; otherwise as in the male: primaries below almost as in the male, but with six marginal yellow spots; secondaries saffron-yellow, with a broader brown border.

Expanse of wings 2 inches 9 lines.

Hab. Bugaba, Veragua. Type, coll. Druce.

Var. ? *monstrosa*.

♂. Smaller and altogether paler than the preceding; primaries above white, the apex with a broader and more strongly sinuated black-brown border; secondaries yellowish white, becoming sulphur-yellow close to the margin, which has a broader border than in the preceding species; primaries below also paler, excepting at apex, with no apical yellow spots, and a more slender discocellular bar; secondaries with broader marginal border and with the orange confined to the base of costa.

Expanse of wings 2 inches 6 lines.

Hab. Bugaba, Veragua. Type, coll. Druce.

The above may turn out to be distinct from *D. florinda*. It is not only smaller and different in coloration, but the primaries are narrower and their outer margin is more distinctly incurved. Both forms approach *D. isandra* in form and marking; but in the ground-colour of the wings *D. florinda* ♂ is like *D. polyhymnia*, *D. florinda* ♀ more like *D. leucanthe* ♀, and var. ? *monstrosa* like *D. pantoporia* ♂.

PROCEEDINGS OF LEARNED SOCIETIES.

ROYAL SOCIETY.

December 17, 1874.—Joseph Dalton Hooker, C.B., President, in the Chair.

“Preliminary Note upon the Brain and Skull of *Amphioxus lanceolatus*.” By T. H. HUXLEY, Sec. R.S.

The singular little fish *Amphioxus lanceolatus* has been universally regarded as an extremely anomalous member of the Vertebrate series, by reason of the supposed absence of renal organs and of any proper skull and brain. On these grounds, chiefly, Agassiz proposed to separate it from all other fishes; and Haeckel, going further, made a distinct division of the Vertebrata (*Acrania*)